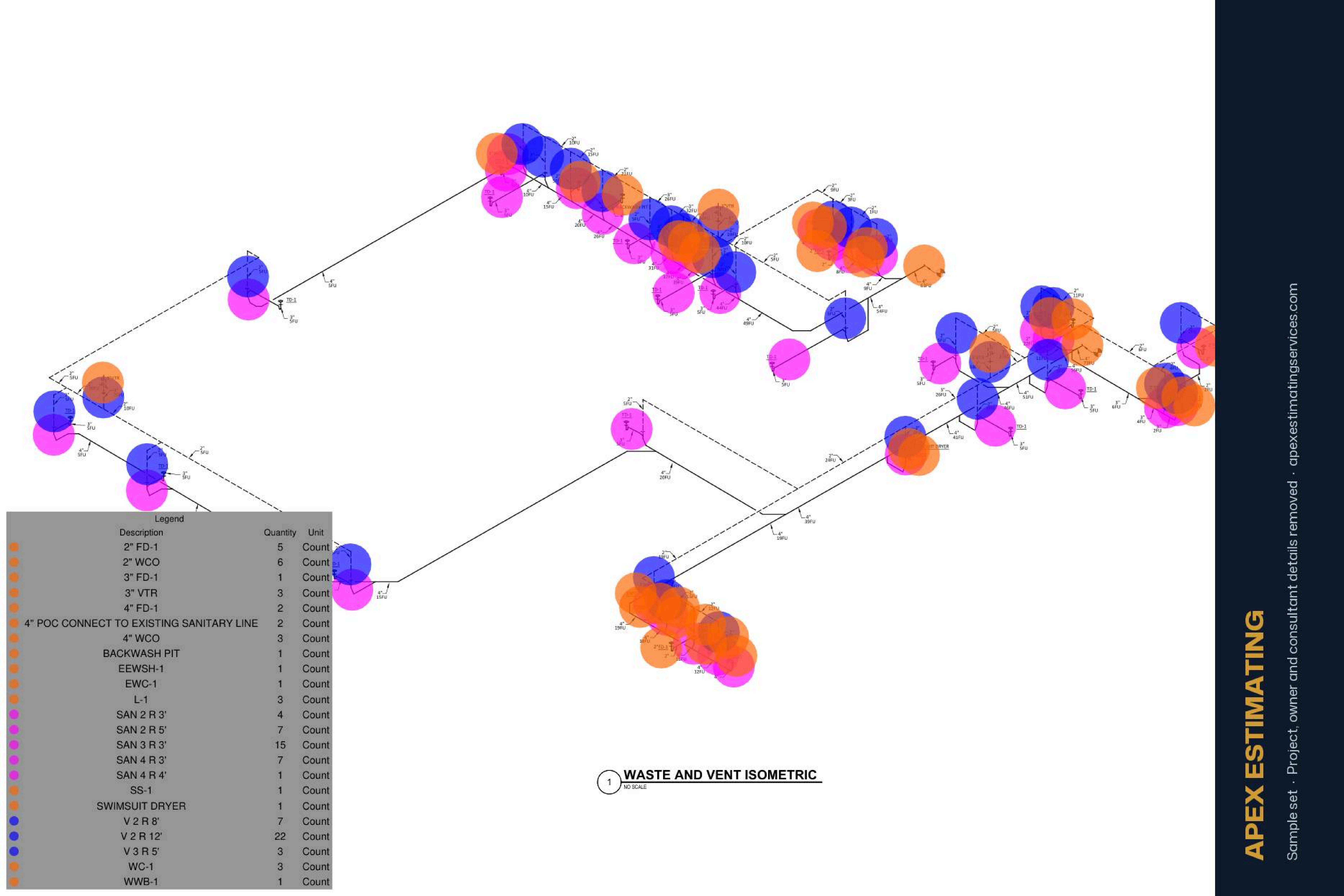
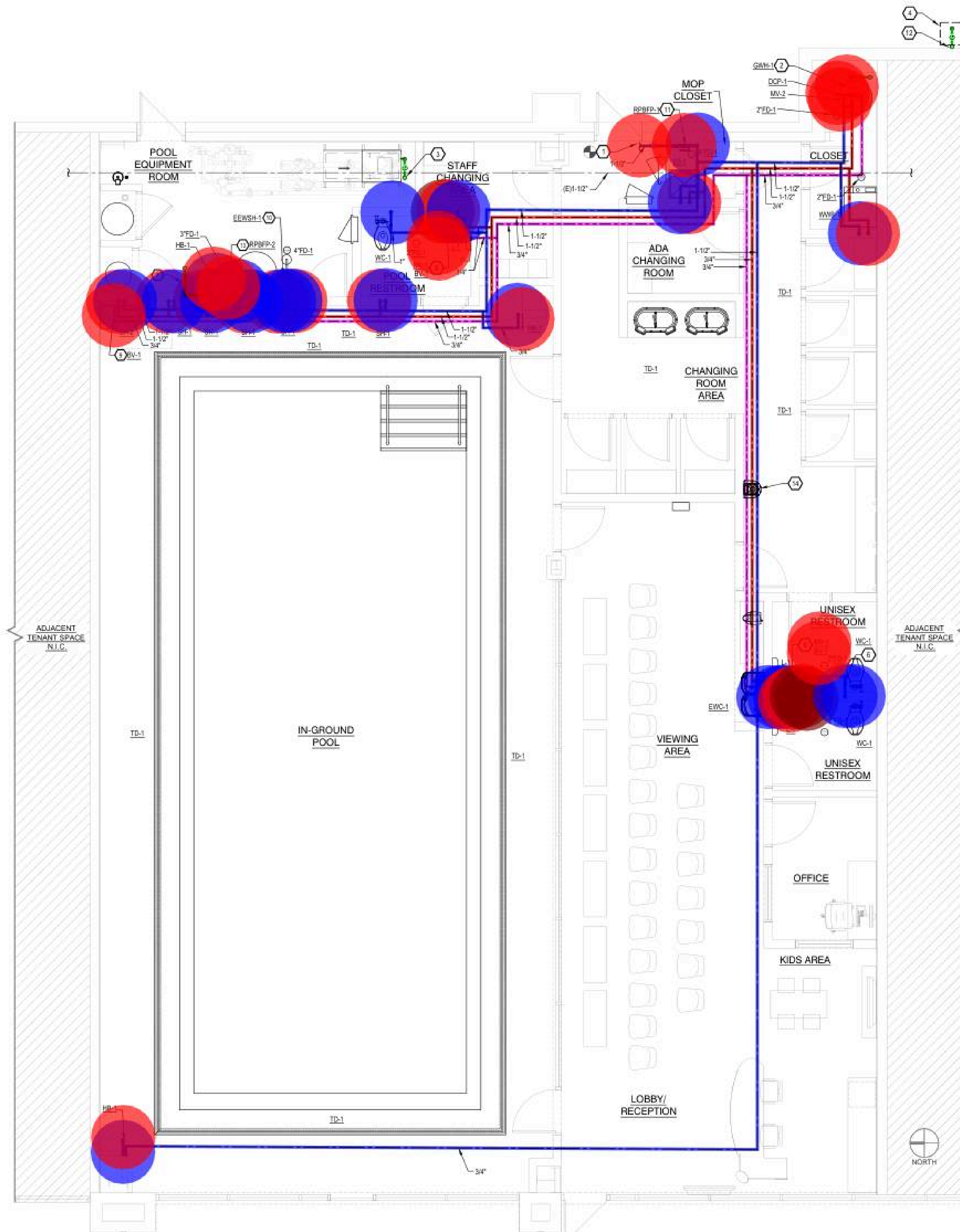




1 WASTE AND VENT ISOMETRIC
NO SCALE

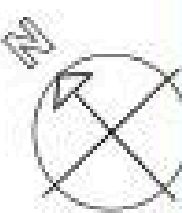


Legend			
Description	Quantity	Unit	
1-1/2" POC CONNECT TO EXISTING WATER LINE	1	Count	
BV-1	3	Count	
CW 1	15.37	ft	
CW 1-1/2	109.84	ft	
CW 1-1/2 R 12'	1	Count	
CW 1 R 9'	4	Count	
CW 1/2 R 8'	13	Count	
CW 3/4	101.42	ft	
CW 3/4 R 8'	3	Count	
DCP-1	1	Count	
G 1	1.54	ft	
G 3/4	7.68	ft	
GWH-1	1	Count	
HB-1	3	Count	
HW 1-1/2	68.27	ft	
HW 1/2 R 8'	12	Count	
HW 3/4	59.26	ft	
HWR 3/4	115.64	ft	
HWR 3/4 R 8'	3	Count	
MV-1	2	Count	
MV-2	1	Count	
RPBFP-1	1	Count	
RPBFP-2	1	Count	

1 PLUMBING DOMESTIC WATER AND GAS FLOOR PLAN
SCALE: 1/4" = 1'-0"
0 2'-0" 4'-0" 8'-0"
SCALE: 1/4" = 1'-0"



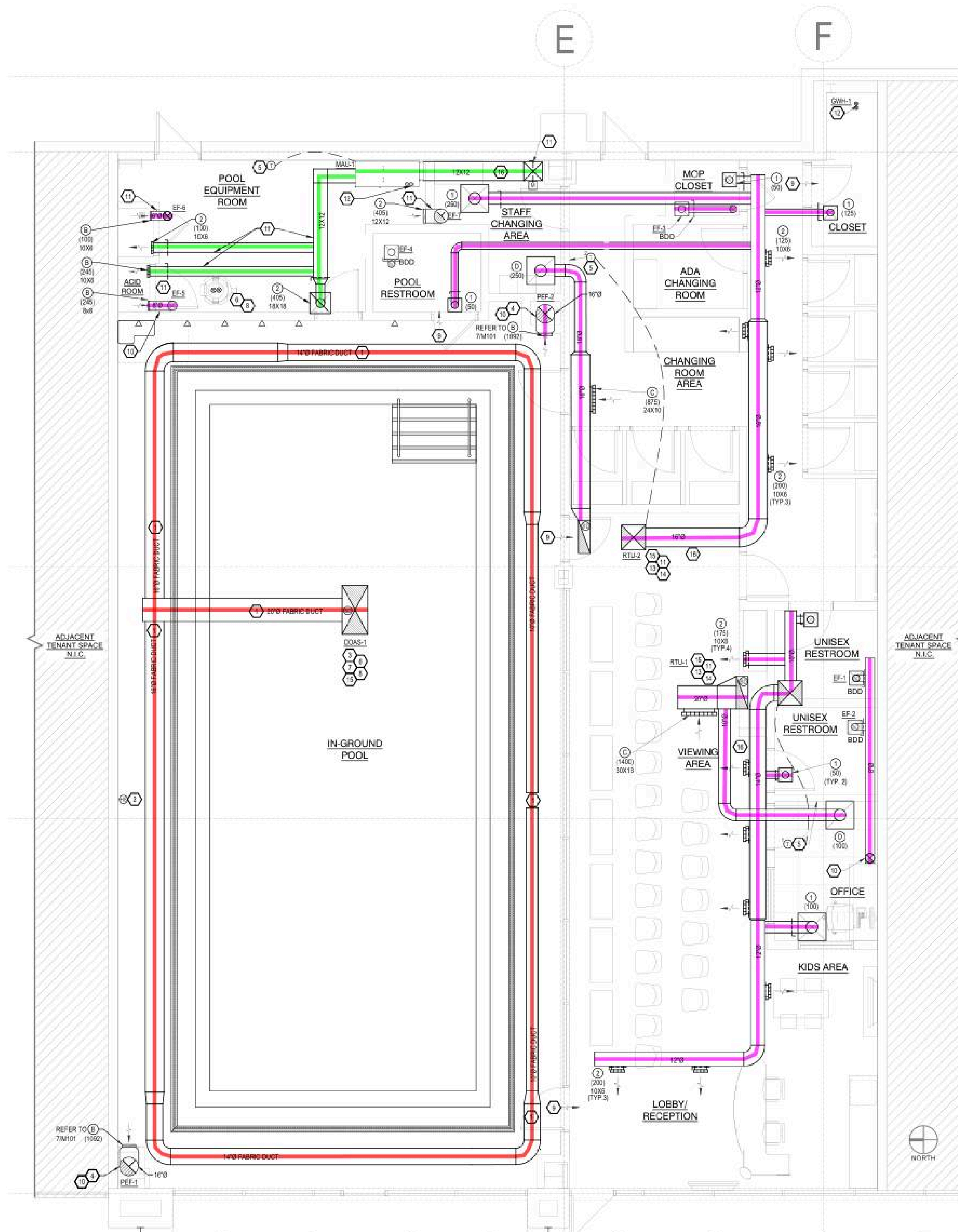
SCALE: 1/4" = 1'-0"



Description	Quantity	Unit
SAN 2 UG	26.83	ft
SAN 3 UG	85.69	ft
SAN 4 UG	215.32	ft
TD-1	173.00	ft
V 2	208.01	ft
V 3	10.59	ft

TWO PEOPLE

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS, DEPT. OF PUBLIC WORKS ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION
2. NEW UTILITY CONNECTIONS SHALL BE MADE PER BASE BUILDING STANDARDS.
3. PATCH AND REPAIR TO MATCH EXISTING AS REQUIRED.
4. TRENCH DRAIN TO BE INSTALLED PER MANUFACTURER AND CODE. PROVIDE ALL END CAPS, OUTLETS, CORNER ASSEMBLIES, ETC. AS REQUIRED FOR A COMPLETE TRENCH DRAIN SYSTEM. GRATE TYPE PER FLUSH WITH FINISH GRADE.
5. ALL FLOOR DRAIN LOCATIONS TO BE APPROVED BY ARCHITECT FOR CONFORMANCE WITH FLOOR PITCH, ADA CLEARANCES, HEALTH DEPARTMENT REQUIREMENTS AND ACCESSIBILITY REQUIREMENTS PRIOR TO INSTALLATION.



GENERAL NOTES:

- A. COORDINATE ROOF PENETRATIONS WITH THE ROOFING CONTRACTOR (IF REQUIRED). PROVIDE AND PAY FOR ANY REQUIRED ROOFING BY ROOFING CONTRACTOR.
- B. REFER TO ARCHITECTURAL PLANS AND KITCHEN VENDOR DRAWINGS FOR DIMENSIONAL INFORMATION.
- C. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL BY THE FIELD INSPECTOR. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
- D. AN OPERATION & SYSTEMS MANUAL SHALL BE PROVIDED TO THE OWNER OR REPRESENTATIVE AND TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION.
- E. AN AIR FILTER WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8 OR HIGHER SHALL BE INSTALLED IN THE MECHANICAL SYSTEM FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY.
- F. THE HVAC REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT SHALL NOT CONTAIN CFC OR HALONS.
- G. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE BUILDING STRUCTURE OR BUILDING UTILITIES CAUSED AS RESULT OF THE CONTRACTOR'S WORK UNDER THIS CONTRACT. IT IS RECOMMENDED THAT MASONRY/CONCRETE FLOORS/WALLS BE X-RAYED PRIOR TO ANY PENETRATIONS.
- H. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING MECHANICAL...
- I. ALL CONCEALED LOW PRESSURE (1/2" WIG) COOLING & HEATING DUCT 20" DIA. OR LESS SHALL BE UL 181 CLASS 1 FACTORY MADE FLEXIBLE ALUMINUM DUCT INSULATED WITH R-8 INSULATION AND SHEATHED WITH A VAPOR PROOF POLYETHYLENE SLEEVE.
- J. ALL ROUND FLEXIBLE SUPPLY TAIL PIECES SHALL BE UL 181 CLASS 1 FACTORY MADE ACUSTICAL FLEXIBLE DUCT WITH MYLOWLINER AND INSULATED WITH R-8 INSULATION SHEATHED WITH A VAPOR PROOF METALIZED POLYESTER SLEEVE. THE MAXIMUM ALLOWABLE LENGTH OF THE FLEX DUCT SHALL BE 6'-0" AND MAY NOT BE USED AS AN ELBOW.
- K. ALL EXPOSED LOW PRESSURE (1/2" WIG) COOLING & HEATING 20" DIA. OR LESS SHALL BE FACTORY MADE GALVANIZED 4-PLY SPIRAL LOCK SEAM DUCT LINED WITH R-8 INSULATION.
- L. ALL CONCEALED INTERIOR RECTANGULAR COOLING & HEATING DUCT SHALL BE GALVANIZED METAL WRAPPED WITH R-8 INSULATION IN ACCORDANCE WITH LOCAL CODE.
- M. ALL EXPOSED INTERIOR AND EXTERIOR RECTANGULAR COOLING & HEATING DUCT SHALL BE GALVANIZED METAL LINED WITH R-8 DUCT LINER IN ACCORDANCE WITH LOCAL CODE.
- N. ALL ROUND ENVIRONMENTAL EXHAUST AIR DUCT AND OUTSIDE AIR DUCT SHALL BE SMOOTH ROUND GALVANIZED PIPE INSTALLED IN ACCORDANCE WITH CHAPTER LOCAL CODE.
- O. ALL RECTANGULAR DUCTWORK SERVING TYPE I HOODS SHALL BE CONSTRUCTED OF 1/8" IN CARBON STEEL (16 GA) OR 0.043 STAINLESS STEEL 1/8" DIA WELDER FOR A LIQUID TIGHT SEAL IN ACCORDANCE WITH LOCAL CODE.
- P. DUCTWORK SHALL BE CONSTRUCTED AND SUPPORTED IN ACCORDANCE WITH LOCAL CODES FROM DESIGNER DUCT.

Legend

Description	Quantity	Unit
FABRIC DUCT 10"	40.47	ft
FABRIC DUCT 14"	64.46	ft
FABRIC DUCT 16"	61.86	ft
FABRIC DUCT 20"	16.08	ft
RECTANGULAR 8X12	25.13	ft
RECTANGULAR 12X12	23.62	ft
ROUND DUCT 4"	1.89	ft
ROUND DUCT 6"	36.39	ft
ROUND DUCT 8"	16.89	ft
ROUND DUCT 10"	57.22	ft
ROUND DUCT 12"	31.55	ft
ROUND DUCT 14"	18.06	ft
ROUND DUCT 16"	39.31	ft
ROUND DUCT 20"	5.02	ft

DIFFUSER SCHEDULE

CFM	Supply Neck Ø	CFM	Return Neck Ø
0 - 125	6"	0 - 100	6"
126 - 250	8"	101 - 200	8"
251 - 350	10"	201 - 375	10"
351 - 550	12"	376 - 625	12"
551 - 700	14"	625 - 925	14"
701 - 850	16"	< 925	See Plans

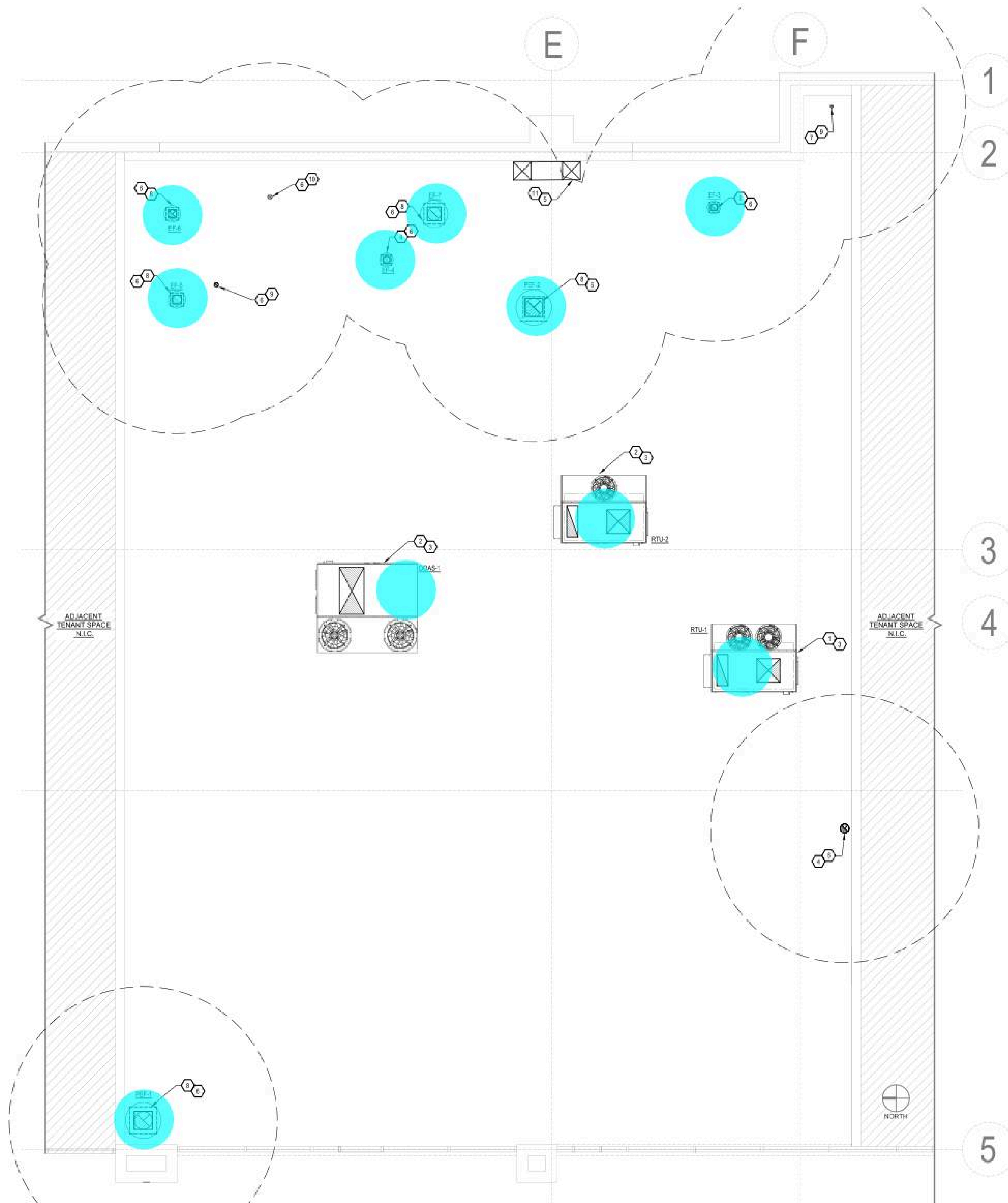
FOR ANY RUN-OUT OVER 20' IN LENGTH, USE NEXT SIZE UP ON THIS SCHEDULE. DETERMINE LENGTH IN FIELD.

MECHANICAL FLOOR PLAN

SCALE: 1/4" = 1'-0"



SCALE: 1/4" = 1'-0"



GENERAL NOTES:

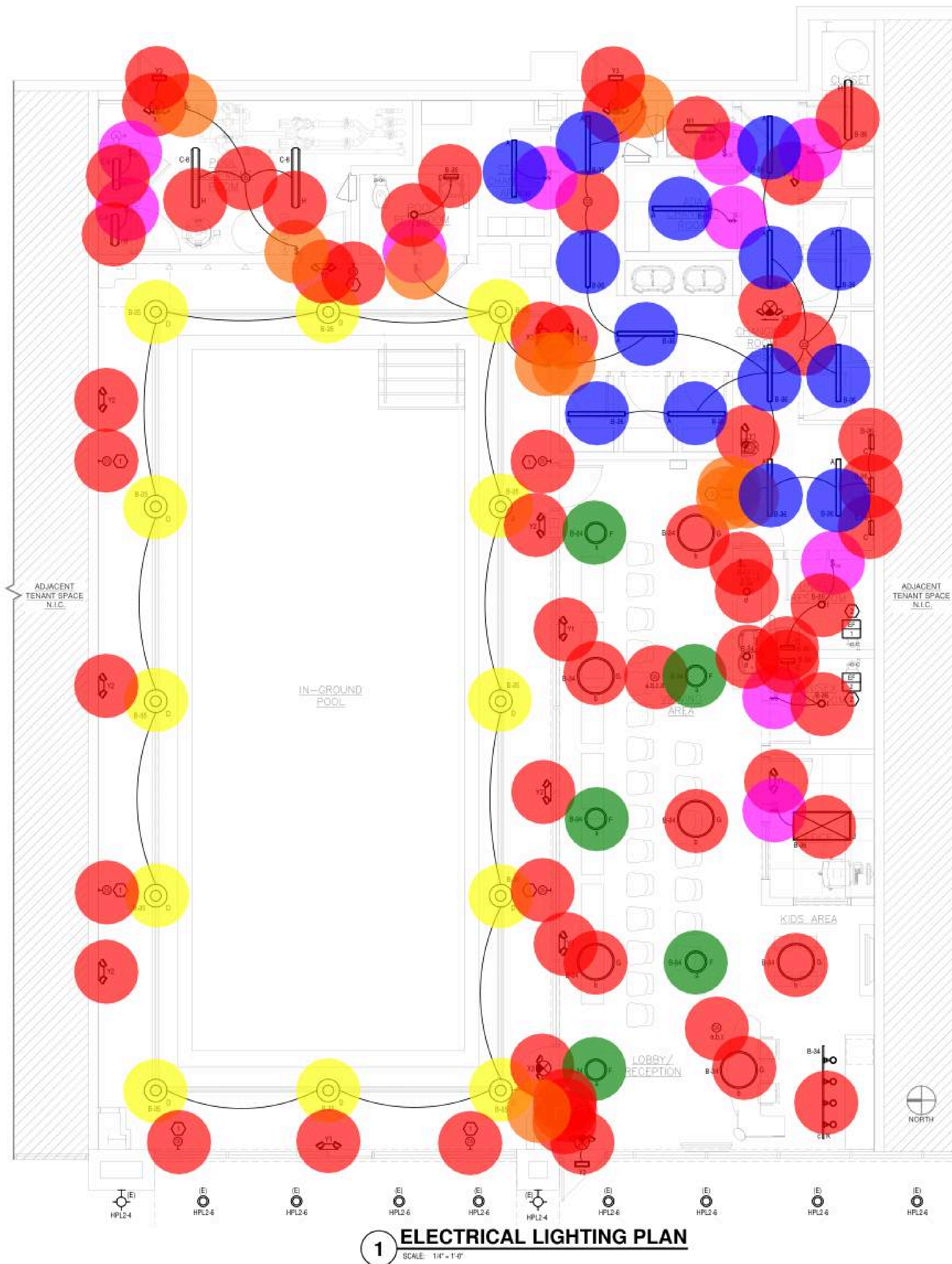
- A. COORDINATE ROOF PENETRATIONS WITH THE ROOFING CONTRACTOR (IF REQUIRED); PROVIDE AND PAY FOR ANY REQUIRED ROOFING BY ROOFING CONTRACTOR.
- B. REFER TO ARCHITECTURAL PLANS AND KITCHEN VENDOR DRAWINGS FOR DIMENSIONAL INFORMATION.
- C. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL BY THE FIELD INSPECTOR. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
- D. AN OPERATION & SYSTEMS MANUAL SHALL BE PROVIDED TO THE OWNER OR REPRESENTATIVE AND TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION.
- E. AN AIR FILTER WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8 OR HIGHER SHALL BE INSTALLED IN THE MECHANICAL SYSTEM FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY.
- F. THE HVAC REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT SHALL NOT CONTAIN CFC OR HALONS.
- G. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE BUILDING STRUCTURE OR BUILDING UTILITIES CAUSED AS RESULT OF THE CONTRACTOR'S WORK UNDER THIS CONTRACT. IT IS RECOMMENDED THAT MASONRY/CONCRETE FLOORS/WALLS BE X-RAYED PRIOR TO ANY PENETRATIONS.
- H. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING MECHANICAL EQUIPMENT THAT SERVING THIS AND NEARBY ADJACENT SPACES AND IS TO REMAIN. CONTRACTOR SHALL VERIFY THE PROPOSED LOCATIONS OF NEW MECHANICAL EQUIPMENT AND DETERMINE IF ANY CONFLICTS (CLEARANCES, ETC) EXIST BETWEEN EXISTING EQUIPMENT AND NEWLY INSTALLED EQUIPMENT. CONTRACTOR SHALL NOTIFY THE ENGINEER IF EQUIPMENT CANNOT BE SUBSTANTIALLY INSTALLED AND LOCATED AS INDICATED BY THESE DRAWINGS.
- I. ALL DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA-2008 OR UL 181 AND CONFORM TO THE REQUIREMENTS OF THE LOCAL CODE.
- J. ALL SUPPLY AND RETURN AIR DUCTS IN UNCONDITIONED SPACES SHALL HAVE R-8 INSULATION.
- K. ALL CONCEALED LOW PRESSURE (<2" WG) COOLING & HEATING DUCT 20" DIA. OR LESS SHALL BE UL 181 CLASS 1 FACTORY MADE FLEXIBLE ALUMINUM DUCT INSULATED WITH R-8 INSULATION AND SHEATHED WITH A VAPOR PROOF POLYETHYLENE SLEEVE.
- L. ALL ROUND FLEXIBLE SUPPLY TAIL PIECES SHALL BE UL 181 CLASS 1 FACTORY MADE ACoustical FLEXIBLE DUCT WITH NYLON LINER AND INSULATED WITH R-8 INSULATION SHEATHED WITH A VAPOR PROOF METALIZED POLYESTER SLEEVE. THE MAXIMUM ALLOWABLE LENGTH OF THE FLEX DUCT SHALL BE 4'-0" AND MAY NOT BE USED AS AN ELBOW.
- M. ALL EXPOSED LOW PRESSURE (<2" WG) COOLING & HEATING 20" DIA. OR LESS SHALL BE FACTORY MADE GALVANIZED 4-PLY SPIRAL LOCK SEAM DUCT LINED WITH R-1 INSULATION. ALL CONCEALED INTERIOR RECTANGULAR COOLING & HEATING DUCT SHALL BE GALVANIZED METAL WRAPPED WITH R-8 INSULATION IN ACCORDANCE WITH LOCAL CODE.
- N. ALL EXPOSED INTERIOR AND EXTERIOR RECTANGULAR COOLING & HEATING DUCT SHALL BE GALVANIZED METAL LINED WITH R-8 DUCT LINER IN ACCORDANCE WITH LOCAL CODE.
- O. ALL ROUND ENVIRONMENTAL EXHAUST AIR DUCT AND OUTSIDE AIR DUCT SHALL BE SMOOTH ROUND GALVANIZED PIPE INSTALLED IN ACCORDANCE WITH CHAPTER LOCAL CODE.
- P. ALL RECTANGULAR DUCTWORK SERVING TYPE I HOODS SHALL BE CONSTRUCTED OF 0.004 IN CARBON STEEL (16 GA) OR 0.003 STAINLESS STEEL (16 GA) WELDED FOR A LIQUID TIGHT SEAL IN ACCORDANCE WITH LOCAL CODE.
- Q. DUCTWORK SHALL BE CONSTRUCTED AND SUPPORTED IN ACCORDANCE WITH THE LATEST EDITION OF THE HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA).
- R. NO EXPOSED FLEXIBLE DUCTS SHALL BE USED.
- S. NO RETURN AIR REGISTERS SHALL BE LOCATED 6'-0" OF A SUPPLY AIR DIFFUSER THAT DIRECTS SUPPLY AIR IN THE DIRECTION OF THE RETURN AIR REGISTER.
- T. ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, OR SHEET METAL UNTIL THE FINAL STARTUP OF THE HEATING, COOLING, AND VENTILATING EQUIPMENT.

Legend			
Description	Quantity	Unit	
DOAS-1	1	Count	
EF-3	1	Count	
EF-4	1	Count	
EF-5	1	Count	
EF-6	1	Count	
EF-7	1	Count	
PEF-1	1	Count	
PEF-2	1	Count	
RTU-1	1	Count	
RTU-2	1	Count	

- CONTRACTOR TO PROVIDE
- TERMINATE WITH WEATHER
- TURN DOWN THE OPEN
- INTAKE TO BE FURNISHED
- RAIN CAP
- OD), AND BIRD SCREEN, ALL
- ALUMINUM OR TYPE 316
- ED DAMPER TO BE
- OPERATION AND SHALL FAIL
- UNIT SHUTDOWN.
- JUSTS OR VENTS ON THE
- IT LESS THAN 10 FEET FROM
- ES ON THE ROOF.
- R INTAKE AND EXHAUST
- OM WATER HEATER
- IS PER MANUFACTURER'S
- AROLINA BUILDING CODE.
- TRACTOR TO INSTALL AS PER
- ENDATION. REFER TO
- ORE DETAILS. COORDINATE
- TURAL ELEMENTS AND
- FLUE VENT/INTAKE TO BE
- FACTURER'S
- PS 2018.
- R INTAKE AND EXHAUST
- OM MAU-1. CONTRACTOR TO
- USER'S INSTRUCTION AND
- CODE.
- UCTS ON THE BUILDING
- WITH INSULATION WRAP.

MECHANICAL ROOF PLAN





GENERAL NOTES:

- FIXTURE SUBSTITUTIONS MAY BE MADE WITH APPROVAL FROM THE TEAM. ALL SUBSTITUTIONS MUST BE SUBMITTED FOR APPROVAL.
- ALL CONDUCTORS SIZING IS BASED ON COPPER ONLY.
- UNLESS OTHERWISE SPECIFIED ALL CIRCUITS ARE TO BE RUN WITH (2#12-1#12GND) IN 3/4" CONDUIT.
- PROVIDE A GREEN INSULATED GROUND WIRE IN ALL RECEPTACLE AND EQUIPMENT BRANCH CIRCUITS.
- WIRE ALL EMERGENCY FIXTURES TO THE UNSWITCHED LEG OF THE NEAREST LIGHTING CIRCUIT.
- REFER TO HOMERUNS FOR ALL LIGHTING CIRCUITING INFORMATION.
- AVERAGE 1 FC FOR EMERGENCY ILLUMINATION TO BE ACHIEVED NEAR POOL AREA.
- EC SHALL COORDINATE WITH OWNER/MANUFACTURER/VENDOR FOR THE EXACT REQUIREMENT OF THE OCCUPANCY SENSORS PROVIDED IN POOL AREA. PROVIDE POWER PACKS AS PER REQUIREMENT. BASE BID ACCORDINGLY.
- CONTRACTOR IS ADVISED TO UPDATE THE EMERGENCY LIGHT FIXTURE LOCATIONS/QUANTITY PER SITE REQUIREMENTS UPON FINAL INSPECTION OR PER LOCAL AHJ REQUIREMENTS.
- CHEMICAL STORAGE AND CORROSIVE ENVIRONMENT AREAS, AS DEFINED IN NEC 680.2, SHALL UTILIZE WIRING METHODS IN ACCORDANCE WITH NEC 680.14. ONLY RIGID METAL CONDUIT (RMC), INTERMEDIATE METAL CONDUIT (IMC), PVC, AND REINFORCED THERMOSETTING RESIN CONDUIT ARE PERMITTED FOR WIRING IN THESE AREAS.

Legend		Quantity	Unit
Description			
15.8 In Circular Ring Pendant		5	Count
31.5 In Circular Ring Pendant		6	Count
A: 4 FT DIRECT / INDIRECT FIXTURE		14	Count
C: Wall Sconce		6	Count
D: High Bay Pendant		12	Count
Dimmer Switch		2	Count
Directional Exit Sign / Emergency Light Combo With Battery Back Up		2	Count
Exterior Remote Egress Light		2	Count
H: 4 Ft Vapor Tight Fixture		3	Count
H1: 2 Ft Vapor Tight Fixture		3	Count
I: 6 In Recessed Downlight		5	Count
J: 2x4 Recessed Troffer		1	Count
K: Track Lighting		1	Count
Occupancy Sensor		5	Count
Occupancy Sensor Switch		10	Count
Three-Way Dimmer Switch		2	Count
Three-Way Switch		10	Count
Wall / Ceiling Mounted Ext Sign With Emergency Lights With Battery Back Up & Remote Capability		3	Count
Wall / Ceiling Mounted Ext Sign With Emergency Lights With Battery Back Up NEMA 4X		2	Count
Wall Mounted Emergency Lights With Battery Back Up		6	Count
Wall Mounted Emergency Lights With Battery Back Up NEMA 4X		6	Count
Wall Mounted Occupancy Sensors		7	Count

